

CLAIMS

What is claimed is:

1. A method of automatic speech recognition (ASR), comprising:
 - receiving a speech utterance from a user;
 - assessing resources of a plurality of different ASR engines;
 - assigning the speech utterance to a single ASR engine if assessing resources is within a threshold value;
 - assigning the speech utterance to a plurality of different ASR engines if assessing resources is within a threshold value; and
 - generating text of the speech utterance with either the single ASR engine or plurality of ASR engines.
2. The method of claim 1 wherein assessing resources further comprises monitoring port utilization for each ASR engine.
3. The method of claim 1 wherein assessing resources further comprises evaluating processing power.
4. The method of claim 1 wherein assessing resources further comprises monitoring memory utilization and input/output utilization.
5. The method of claim 1 wherein assessing resources further comprises monitoring a number of users providing speech utterances.
6. The method of claim 1 wherein assigning the speech utterance to a single ASR engine if assessing resources is within a threshold value occurs when port utilization of the single ASR engine is lower than a port utilization threshold of about 80%.

7. The method of claim 1 wherein assigning the speech utterance to a plurality of different ASR engines if assessing resources is within a threshold value occurs when port utilization of two ASR engines is lower than a predefined threshold of about 75%.
8. An automatic speech recognition (ASR) system comprising:
 - means for processing a digital input signal from an utterance of a user;
 - means for evaluating resources of the ASR system; and
 - means for selecting between a single ASR engine and a group of ASR engines to recognize the utterance of the user, wherein the means for selecting utilizes the evaluation of resources to select between the single ASR engine and the group of ASR engines.
9. The ASR system of claim 8 wherein the means for evaluating resources of the system monitors port utilization of the ASR engines.
10. The ASR system of claim 9 wherein the means for evaluating resources of the system also monitors available processing power of the system.
11. The ASR system of claim 8 further comprising a means for combining results of ASR engines if the group of ASR engines is selected, the group of ASR engines being adapted to provide a more accurate recognition of the utterance than a single ASR engine.
12. The ASR system of claim 8 wherein the means for evaluating resources of the system evaluates resources to simultaneously run multiple ASR engines.
13. The ASR system of claim 8 wherein the means for evaluating resources of the system evaluates ASR ports, system resources, and call handlers.
14. A system, comprising:

a computer system comprising a central processing unit coupled to a memory and resource management application; and

a plurality of different automatic speech recognition (ASR) engines coupled to the computer system, wherein the computer system is adapted to select either a single ASR engine or multiple ASR engines to analyze a speech utterance based on resources available on the system.

15. The system of claim 14 wherein the computer system selects an ASR engine that has most available resources.
16. The system of claim 14 further comprising a telephone network comprising at least one switching service point coupled to the computer system.
17. The system of claim 16 further comprising at least one communication device in communication with the switching service point to provide the speech utterance.
18. The system of claim 14 wherein the resource management application comprises a recognition proxy component and a resource monitoring component.
19. The system of claim 18 wherein the resource management component collects and analyzes information about the resources available on the system.
20. The system of claim 19 wherein the resource monitoring component mediates between the plurality of ASR engines and the resource management component.